

**§ 121.424 Pilots: Initial, transition, conversion, and upgrade flight training.**

(a) Initial, transition, and conversion flight training for pilots must include the following:

(1) Flight training and practice in the maneuvers and procedures set forth in the certificate holder's approved low-altitude windshear flight training program and in appendix E to this part, as applicable; and

(2) Extended envelope training set forth in § 121.423.

(b) Beginning on April 27, 2022, in addition to the requirements in paragraph (a) of this section, initial flight training for pilots in command must include sufficient scenario-based training incorporating CRM and leadership and command skills, to ensure the pilot's proficiency as pilot in command. The training required by this paragraph may be completed inflight or in an FSTD.

(c) The training required by paragraph (a) of this section must be performed inflight except—

(1) That windshear maneuvers and procedures must be performed in an FFS in which the maneuvers and procedures are specifically authorized to be accomplished;

(2) That the extended envelope training required by § 121.423 must be performed in a Level C or higher full flight simulator unless the Administrator has issued to the certificate holder a deviation in accordance with § 121.423(e); and

(3) To the extent that certain other maneuvers and procedures may be performed in an FFS, an FTD, or a static airplane as permitted in appendix E to this part.

(d) Except as permitted in paragraph (e) of this section, the initial flight training required by paragraph (a)(1) of this section must include at least the following programmed hours of inflight training and practice unless reduced under § 121.405;

(1) Group I airplanes—

(i) *Reciprocating powered.* Pilot in command, 10 hours; second in command, 6 hours; and

(ii) *Turbopropeller powered.* Pilot in command, 15 hours; second in command, 7 hours.

(2) *Group II airplanes.* Pilot in command, 20 hours; second in command, 10 hours.

(e) If the certificate holder's approved training program includes a course of training utilizing an FFS under § 121.409 (c) and (d) of this part, each pilot must successfully complete—

(1) With respect to § 121.409(c) of this part—

(i) Training and practice in the FFS in at least all of the maneuvers and procedures set forth in appendix E of this part for initial flight training that are capable of being performed in an FFS; and

(ii) A proficiency check in the FFS or the airplane to the level of proficiency of a pilot in command or second in command, as applicable, in at least the maneuvers and procedures set forth in appendix F of this part that are capable of being performed in an FFS.

(2) With respect to § 121.409(d) of this part, training and practice in at least the maneuvers and procedures set forth in the certificate holder's approved low-altitude windshear flight training program that are capable of being performed in an FFS in which the maneuvers and procedures are specifically authorized.

(f) Compliance with paragraphs (a)(2) and (c)(2) of this section is required no later than March 12, 2019.

(g) Before April 27, 2022, upgrade flight training must be provided in accordance with paragraphs (a), (c), (e), and (f), of this section or § 121.426. Beginning on April 27, 2022, upgrade flight training must be provided as specified in § 121.426.

[Doc. No. 9509, 35 FR 90, Jan. 3, 1970, as amended by Amdt. 121-199, 53 FR 37697, Sept. 27, 1988; Amdt. 121-366, 78 FR 67840, Nov. 12, 2013; Amdt. 121-382, 85 FR 10923, Feb. 25, 2020; Amdt. 121-384, 85 FR 39070, June 30, 2020]

**§ 121.425 Flight engineers: Initial and transition flight training.**

(a) Initial and transition flight training for flight engineers must include at least the following:

(1) Training and practice in procedures related to the carrying out of flight engineer duties and functions.

This training and practice may be accomplished either inflight or in an FSTD.

(2) A flight check that includes—

- (i) Preflight inspection;
- (ii) Inflight performance of assigned duties accomplished from the flight engineer station during taxi, runup, take-off, climb, cruise, descent, approach, and landing;
- (iii) Accomplishment of other functions, such as fuel management and preparation of fuel consumption records, and normal and emergency or alternate operation of all airplane flight systems, performed either inflight or in an FSTD.

(b) Flight engineers possessing a commercial pilot certificate with an instrument, category and class rating, or pilots already qualified as second in command and reverting to flight engineer, may complete the entire flight check, required by paragraph (a)(2) of this section, in an approved FFS.

(c) Except as permitted in paragraph (d) of this section, the initial flight training required by paragraph (a) of this section must include at least the same number of programmed hours of flight training and practice that are specified for a second in command pilot under §121.424(c) unless reduced under §121.405.

(d) If the certificate holder's approved training program includes a course of training utilizing an FSTD under §121.409(c), each flight engineer must successfully complete in the FSTD—

(1) Training and practice in at least all of the assigned duties, procedures, and functions required by paragraph (a) of this section; and

(2) A flight check to a flight engineer level of proficiency in the assigned duties, procedures, and functions.

[Doc. No. 9509, 35 FR 90, Jan. 3, 1970, as amended by Amdt. 121-144, 43 FR 22647, May 25, 1978; Amdt. 121-382, 85 FR 10923, Feb. 25, 2020]

#### **§ 121.426 Pilots: Upgrade flight training.**

(a) Upgrade flight training for pilots must include the following:

(1) Seat dependent maneuvers and procedures, as applicable;

(2) Duty position maneuvers and procedures, as applicable;

(3) Extended envelope training set forth in §121.423;

(4) Maneuvers and procedures set forth in the certificate holder's low altitude windshear flight training program;

(5) Sufficient scenario-based training incorporating CRM and leadership and command skills, to ensure the pilot's proficiency as pilot in command; and

(6) Sufficient training to ensure the pilot's knowledge and skill with respect to the following:

(i) The airplane, its systems and components;

(ii) Proper control of airspeed, configuration, direction, altitude, and attitude in accordance with the Airplane Flight Manual, the certificate holder's operations manual, checklists, or other approved material appropriate to the airplane type; and

(iii) Compliance with ATC, instrument procedures, or other applicable procedures.

(b) The training required by paragraph (a) of this section must be performed inflight except—

(1) That windshear maneuvers and procedures must be performed in an FFS in which the maneuvers and procedures are specifically authorized to be accomplished;

(2) That the extended envelope training required by §121.423 must be performed in a Level C or higher FFS unless the Administrator has issued to the certificate holder a deviation in accordance with §121.423(e); and

(3) To the extent that certain other maneuvers and procedures may be performed in an FFS, an FTD, or a static airplane as permitted in Appendix E of this part.

(c) If the certificate holder's approved training program includes a course of training utilizing an FFS under §121.409(c) and (d), each pilot must successfully complete—

(1) With respect to §121.409(c)—A proficiency check in the FFS or the airplane to the level of proficiency of a pilot in command in at least the maneuvers and procedures set forth in Appendix F of this part that are capable of being performed in an FFS.